## **CLAIMS**

What is claimed is:

- 1. An electrospray device comprising:
- a. a substrate;
- b. a first channel communicating at one end with an exit orifice at a surface of the substrate;
- c. a recess formed in the surface of the substrate so as to surround said first channel, thereby forming a nozzle from which an electrospray may be emitted.
- 2. The device of claim 1, further comprising a plurality of additional channels communicating at one end with an exit orifice of the same surface of the substrate as that of the first channel so as to form a planar array of channels; each channel having a recess formed in the surface of the substrate so as to form a nozzle from which an electrospray may be emitted.
  - 3. The device of claim 1, wherein the substrate is monolithic.
  - 4. The device of claim 1, wherein the substrate is monolithic silicon.
- 5. The device of claim 1, wherein the cross-sectional area of the nozzle is less than 50,000 square micrometers.